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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,032	11/17/2000	Thomas Cast	2000-0474D	5234
21034	7590	10/01/2004	EXAMINER	
IPSOLON LLP 805 SW BROADWAY, #2740 PORTLAND, OR 97205			D AGOSTA, STEPHEN M	
			ART UNIT	PAPER NUMBER

2683

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/714,032	Applicant(s) CAST ET AL.	
	Examiner Stephen M. D'Agosta	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 13-16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 6, 8-12, 17, 18 and 22-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 13 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. US 6,263,212 in view of Astrom US 5,579,372 and Richardson US 5,329,520 (hereafter Ross and Astrom and Richardson).

As per **claims 1, 13 and 25**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach a method for a gateway connecting at least one message source and a primary message center comprising:

Transmitting a data unit associated with the message from the message source to the gateway (C1, L10-25)

But is silent on

Determining whether the message source has exceeded a threshold value of a number of messages sent from the message source the threshold value being independent of the aggregate number of messages being sent to the gateway and/or using throttle control;

Transmitting a response signal from the gateway to the message source indicating an error if the message source has exceeded the threshold value.

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With further regard to claim 13, Ross is silent on:

- providing throttle control in a gateway between a message source and a destination message center comprising:

- Determining whether message source has exceeded a throttle control limit
- Transmitting a throttling error to the message source if the message source has exceeded the throttle control limit according to the determining step.

Ross does teach outbound (eg. Message Center to Mobile Unit) flow control (C9, L45-67 to C10, L1-15). One skilled in the art would provide for inbound flow control as well (data links, hardware, etc.). The examiner states that flow control (and/or Quality of Service) is well known in the art and is a form of "error control" since it involves the ability to sense congestion and adapt communication flows based upon it (ie. increase bandwidth, use alternate routes, use alternate hardware, etc.). Further to this point is Richardson who teaches a high speed digital communications system that determines if error threshold has been exceeded for the path, control passes to wait state 52 for the remainder of the check period (e.g., 400 msec) (C15, L6-27 which teaches monitoring thresholds for errors).

Astrom teaches flow control for SMS messaging (title and abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that flow control (throttling) is used, to provide "quality of service" for data transmission (ie. flow control, multiple message centers, etc).

Claims 2-5, 7, 10, 14-16 and 19-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Ross/Astrom/ Richardson in view of Blonder US 5,946,299 (hereafter Blonder).

As per **claims 2 and 16**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 1/15 and message sources/gateways (s) **but are silent on** further comprising:

rejecting further messages transmitted from the message source to the gateway when the determining step indicates that the message source has exceeded the threshold value.

Ross does teach outbound (eg. Message Center to Mobile Unit) flow control (C9, L45-67) whereby a server runs multiple parallel processes capable of handling processing of SMS message (which reads on handling congestion and alternate message center(s) and transmitting to an alternate message center if congestion occurs). The examiner also states that flow control (and/or Quality of Service) is well known in the art and involves the ability to sense congestion and adapt communication flows based upon it (ie. increase bandwidth, use alternate routes, use alternate hardware, etc.). Further to this point is **Richardson** who teaches a high speed digital communications system that determines if error threshold has been exceeded for the path, control passes to wait state 52 for the remainder of the check period (e.g., 400 msec) (C15, L6-27 which teaches monitoring thresholds for errors).

Blonder teaches determining if a primary server is congested and routing a packet/message to an alternate server along with a "rejected message" which reads on "rejecting some/all messages received at gateway for primary message center (Abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that congestion status messages are sent and rejecting messages at the primary during flow control, to provide quality of service for data transmission.

As per **claim 3**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 2 and message source/gateway(s) **but are silent on** further comprising:

Transmitting a command status signal indicating a throttling error.

Ross does teach flow control for outbound (eg. Message Center to Mobile Unit) flow control (C9, L45-67) whereby a server runs multiple parallel processes capable of handling processing of SMS message (which reads on handling congestion and alternate message center(s) and transmitting to an alternate message center if congestion occurs). The examiner also takes **Official Notice** that flow control (and/or Quality of Service) is well known in the art and involves the ability to sense congestion and adapt communication flows based upon it (ie. increase bandwidth, use alternate routes, use alternate hardware, etc.). ***Control messages are sent to ensure that the system operates correctly.*** Also see Richardson above.

Blonder teaches determining if a primary server is congested and routing a packet/message to an alternate server along with a "rejected message" which reads on "rejecting some/all messages received at gateway for primary message center (Abstract). One skilled in the art realizes that control messages would be used between the different messaging centers.

It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that congestion status messages are sent, to provide quality of service for data transmission.

As per **claims 4 and 19**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 3/13 a method for a gateway connecting at least one message source and a primary message center (with or without flow control being present).

As per **claims 5 and 20**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 4/19 and message source/gateway(s) **but are silent on** further comprising:

Logging in the gateway all events associated with determining whether the message source has exceeded the threshold value.

The examiner takes **Official Notice** that engineers provide means for determining if a problem/event is occurring and means for recording/logging the event. This provides the engineer the ability to trouble-shoot problems, determine trends and ultimately better tune the system for optimal operation. Hardware vendors typically supply event recorders in their administrator software (eg. Microsoft's Event Viewer and Performance Monitor). The applicant refers to Cisco hardware (spec. page 71, L2) which provides the IOS to allow the administrator to control and monitor operations of the router. Also see Richardson above.

It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that events are logged, to provide means for the engineer to record and review the events for troubleshooting/tuning.

As per **claims 7 and 21**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 3/15 and message source/gateway(s) **but are silent on** further comprising:

Signaling an alarm when the threshold limit is exceeded by a message source.

The examiner takes **Official Notice** that engineers provide means for determining if a problem/event is occurring and providing an alarm to the administrator. This provides the engineer the ability to carry on with normal activities UNTIL alerted to a problem condition. Hardware vendors typically supply event recorders in their administrator software (eg. Microsoft's Event Viewer and Performance Monitor) which can provide alarms to the administrator when limits are exceeded.. The applicant refers to Cisco hardware (spec. page 71, L2) which provides the IOS to allow the administrator to control and monitor operations of the router. Also see Richardson above.

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It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that an alarm is signaled, to provide means for automatic notification that a threshold has been exceeded.

As per **claims 10, 14 and 15**, both Ross (figures 1 and 2) and the applicant's specification (figure 1 and page 2, L19-24 and page 3, L3-24) teach claim 3/13 and message source/gateway(s) **but are silent on** further comprising:

A status signal indicating a throttling error further instructs the message source to reduce a message sending rate (claims 10 and 14).

Invoking throttle control if the message source has exceeded the throttle control limit according to the determining step (claim 15).

Ross does teach outbound (eg. Message Center to Mobile Unit) flow control (C9, L45-67 to C10, L1-15). One skilled in the art would provide for inbound flow control as well (data links, hardware, etc.). The examiner also takes **Official Notice** that flow control (and/or Quality of Service) is well known in the art and involves the ability to sense congestion and adapt communication flows based upon it (ie. increase bandwidth, use alternate routes, use alternate hardware, etc.). ***Reducing sending rate of any/all senders within the system is another way of providing quality of service and reads on the claimed limitation. Also see Richardson above.***

It would have been obvious to one skilled in the art at the time of the invention to modify Ross, such that control messages are used to reduce message sending rates, to reduce contention for the bandwidth when it is congested.

Allowable Subject Matter

Claims 6, 8-9, 11-12, 17-18 and 22-24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

-- Claim 6 teaches logging time, message source subject to throttle control, number of messages rejected and throttle control limit.

-- Claims 8 and 22 teaches alarm includes time, message source subject to throttle control number of messages rejected and threshold value (Claim 9 depends on claim 8 and claims 23-24 depend on claims 22/23).

-- Claims 11-12 depend on claims 9 and 11.

-- Claim 17 teaches throttle control limit is between .1 messages per second and 500 messages per second (claim 18 depends on claim 17).

Ross does not disclose the above limitations.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
9-15-04



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